

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. .... 10/642,454  
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Filing Date ..... August 13, 2003  
Inventor ..... Eugene P. Marsh  
Assignee ..... Micron Technology, Inc.  
Group Art Unit ..... 2811  
Examiner ..... Hung K. Vu  
Attorney's Docket No. .... MI22-2382  
Customer No. .... 021567  
Title: ..... Platinum-Containing Integrated Circuits and Capacitor Constructions

### **PRE-APPEAL BRIEF REQUEST FOR REVIEW**

To place the application in condition for allowance, Applicant herein cancels previously pending claims 44-46 and 48 leaving claims 29-32, 34, 35, 37, and 40-43 pending in the application. Applicant requests review of the rejection of claims 29-32, 34, 35, 37, and 40-43. Claims 29-32, 34, 35, 37, and 40-43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura (U.S. Patent No. 6,232,629) in view of Aoki et al. (U.S. Patent No. 6,033,953).

Obviousness requires that the Examiner supporting any conclusion of obviousness by at least demonstrating that all of the claimed limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580, 582-3 (CCPA 1974). The burden of establishing obviousness is on the Examiner, not the Applicant. The Examiner, not the Applicant, must first establish a prima facie case of obviousness and part of that case requires all the elements of the claims be demonstrated. However, all of the limitations of the pending claims are not taught or suggested by the prior art.

For example, claim 29 recites an integrated circuit comprising:

a semiconductive substrate; and

a roughened platinum layer over the substrate, the roughened platinum layer having a thickness of greater than or equal to about 100 angstroms and a continuous surface comprising columnar platinum pedestals terminating in dome-shaped tops, the columnar platinum pedestals having heights greater than or equal to about one-third of a total thickness of the platinum layer.

The cited references fail to teach the platinum layer as claimed.

The Examiner indicates that "Nakamura does not disclose the platinum layer having a thickness of greater than or equal to about 100 angstroms" and relies on Aoki (Col. 4, lines 5-13) for this limitation. However, Aoki fails to teach this limitation. Instead, Aoki describes the flattening of a 1000 Å layer (Col. 4, line 7) "into a size of angstrom level." (Col. 4, lines 20-23). It is neither fair nor reasonable to interpret "size of angstrom level" as the claim limitation "of greater than or equal to about 100 angstroms" at without this limitation, the cited references fail to teach all elements of the pending claims. For at least this reason, claim 29 and all claims depending therefrom are allowable.


Furthermore, claim 40 recites a capacitor with the limitation wherein at least one of the first and second capacitor electrodes comprises a roughened platinum layer, the roughened platinum layer having a thickness of from about 400 angstroms to about 1000 angstroms and comprising platinum pedestals that are at least about 300 angstroms tall and terminate in dome-shaped tops. The Examiner has relied on the same reasoning above to reject claim 40 and for at least the reason that claim 40 recites specific dimensions that are not taught in the cited references, claim 40 as well as claims depending therefrom are allowable.

Claims 29-32, 34, 35, 37, and 40-43 are in condition for allowance.

Since the Examiner's rejections of claims 29-32, 34, 35, 37, and 40-43 are believed to be clearly erroneous, withdrawal of such rejections is respectfully requested.

Respectfully submitted,

Dated: 2/11/08

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